HAPPENINGS at the SAB

...ensuring a solid technical basis for environmental protection

Volume 7 Number 7 July 2002

January in July

EDITORIAL

This July, I am reminded of Janus, the Roman god who looks back in time and forward to the future as a new year begins. As I take on my role as Director of the Science Advisory Board Staff Office, I am conscious of the successes and strengths of the Board in the past and the opportunities and challenges to come.

When I first learned I would be joining the SAB Staff, I read a variety of background materials, including materials developed for the last Executive Committee Retreat, held in April 2001. A highlight of those materials was interviews with senior leaders at EPA and knowledgeable observers of the Board. The interviews asked: "Where has the Board made a positive difference in the production and use of science at EPA and what are the reasons why you believe it to have been successful?" Respondents named a range of past SAB activities. Here are some examples: peer reviews of key documents with scientific dimensions; *Reducing Risk;* commentaries calling for integrated multimedia models for use in regulatory decision-making; economic advice that has strengthened cost-benefit assessment; and review of Agency research strategies.

Those projects were successful, I believe, for several reasons. The Board's advice was independent, balanced, and of high technical quality. The advice was based on a firm knowledge of the Agency's mission and was responsive to Agency needs. SAB Members and Consultants were engaged in tasks that made good use of their commitment of time, knowledge, expertise and experience.

I see my role as SAB Staff Office Director as supporting the SAB Leadership in providing the highest quality advice possible to the Agency. We start our new partnership with a renewed focus on improving policies and procedures for the SAB and its staff. Thanks to the advice of the Executive Committee and the Policies and Procedures Subcommittee, we have a new approach to panel formation at the

In this issue...

Board. In addition, SAB Staff has developed, and is beta-testing new ethics training, delivered through an interactive computer-based format. We are committed to developing additional guidance to strengthen the Board's operations and opening up new avenues of communication with professional associations and stakeholders interested in the work of the Board.

Within EPA, I also see new opportunities to design an annual agenda of SAB projects that hold potential for great benefits for the Agency. In May, the Administrator appointed Dr. Paul Gilman, the Assistant Administrator for the Office of Research & Development, as the EPA Science Advisor. She charged him "to advise me on all future science and technology issues and their relationship to Agency policies, procedures, and decisions." I will be working with Dr. Gilman to ensure that SAB operations meet high standards and also to ensure that he understands that the Board is a resource to provide the Agency with sound advice on its highest priority scientific and technical projects, including emerging issues. Dr. Gilman and I will also be working with the Agency's Science Policy Council, a cross-Agency group of senior managers to build an agenda that makes the best use of the talents that the Board provides the Agency. And finally, in regard to resources, I have entered my new position with a vision of providing the Board and its staff with the human and financial resources needed to provide the operational support that its science advisors deserve.

I look forward to working with you as we shape the next phase of the work of the Board.

Vanessa Vu, Ph.D.
Director, Science Advisory Board
Staff Office

TENTATIVE SAB MEETING CALENDAR FOR JULY & AUGUST

Several of the Federal Advisory Committee Act (FACA) meetings noted below have been announced in the Federal Register (FR), together with additional background information. Readers can automatically receive e-mailed copies of FR Notices by subscribing to the SAB Listserver; see Section Updates below.

If a series of meetings is anticipated, the number of the meeting in the series is indicated in parentheses; e.g., "(#2)".

JULY

8F

Committee:	Executive Committee (EC) Subcommittee
Topic(s):	Policy and Procedures Subcommittee Discussions
Location:	Ariel Rios Building, Room 6013, Teleconference
Chair:	*Dr. Henry Anderson, Wisconsin Division of Public Health*
DFO:	*Dr. Angela Nugent*
Email:	*nugent.angela@epa.gov*

10-12

Committee:	Executive Committee (EC) Subcommittee
Topic(s):	STAA Review
Location:	Closed
Chair:	*Dr. Herb Ward, Rice University*
DFO:	*Mr. A. Robert Flaak*
Email:	*flaak.robert@epa.gov*

16F

Committee:	Executive Committee (EC)
Topic(s):	General Discussions
Location:	Ariel Rios Building, Room 6013, Teleconference
Chair:	*Dr. William Glaze, University of North Carolina*
DFO:	*Mr. A. Robert Flaak*
Email:	*flaak.robert@epa.gov*

Happenings at the Science Advisory Board

18F

Committee:	Environmental Health Committee (EHC)
Topic(s):	Trichloroethylene Health Risk Assessment
Location:	Ariel Rios Building, Room 6013, Teleconference
Chair:	*Dr. Henry Anderson, Wisconsin Division of Public Health*
DFO:	*Dr. Angela Nugent*
Email:	*nugent.angela@epa.gov*

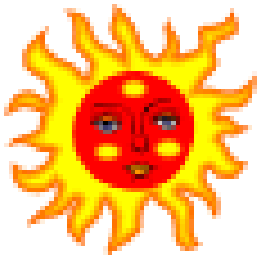
18-19

Committee:	Clean Air Scientific Advisory Committee (CASAC)
Topic(s):	PM Criteria Document Review
Location:	RTP New Lab Building Conference Center, RTP, NC
Chair:	*Dr. Philip Hopke, Clarkson University*
DFO:	*Mr. A. Robert Flaak*
Email:	*flaak.robert@epa.gov*

July 30 - Aug 1

Committee:	Radiation Advisory Committee (RAC)
Topic(s):	MARSSIM Supplements and MARLAP II
Location:	TBA
Chair:	*Dr. Janet Johnston, Shepherd Miller, Inc.*
DFO:	*Dr. K. Jack Kooyoomjian*
Email:	*kooyoomjian.jack@epa.gov*

AUGUST



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Committee:	Radiation Advisory Committee (RAC)
Topic(s):	MARSSIM Supplements and MARLAP II
Location:	TBA
Chair:	*Dr. Janet Johnston, Shepherd Miller, Inc.*
DFO:	*Dr. K. Jack Kooyoomjian*
Email:	*kooyoomjian.jack@epa.gov*

Happenings at the Science Advisory Board

29-30	Committee:	Environmental Health Committee (EHC)
	Topic(s):	Human Health RA Research Strategy
	Location:	Tentatively (RTP New Lab Building Conference Center, RTP, NC)
	Chair:	*Dr. Henry Anderson, Wisonsin Division of Public Health*
	DFO:	*Mr. Thomas Miller*
	Email:	*miller.tom@epa.gov*
TBAF	Committee:	Environmental Engineering Committee (EEC)
	Topic(s):	RROS
	Location:	TBA, Teleconference
	Chair:	*Dr. Domenico Grasso, Smith College*
	DFO:	*Ms. Kathleen White*
	Email:	*white.kathleen@epa.gov*
TBAF	Committee:	Environmental Economics Advisory Committee (EEAC)
	Topic(s):	Affordability
	Location:	TBA, Teleconference
	Chair:	*Dr. Robert Stavins, Harvard University*
	DFO:	*Mr. Thomas Miller*
	Email:	*miller.tom@epa.gov*

To View a Tentative 6 Month Calendar Click Here
Or Go to the SAB website www.epa.gov/sab/mtgcal.htm

COMMITTEE ACTIVITIES IN JUNE

On June 5, 2002, the Environmental Health Committee's (EHC) Trichloroethylene Health Risk Assessment: Synthesis and Characterization Review Panel (TCE Review Panel) held a public teleconference. The purpose of this public teleconference meeting was to: a) discuss the charge and the adequacy of the review materials provided to the TCE Review Panel; b) clarify any questions and issues relating to the charge and the review materials; c) discuss specific charge assignments to the TCE Review Panelists; and d) clarify next steps in preparation for the face-to-face meeting to be held on June 18-19, 2002.

The Panel members identified several supplementary items of information needed to place the TCE draft assessment in

context and decided to make a minor change in the Agenda to discuss the issue of chemical mixtures. The Panel members identified several action items for the DFO and Panel members to prepare for the June 18-19, 2002 face-to-face meeting.

On June 11, the Drinking Water Committee (DWC) met via teleconference to receive briefings on, and to plan for how it might respond to the Agency's request to review two regulatory proposals, 1) the Six Year Review - Notice of Intent on Preliminary Revise/Not Revise Decisions for Existing Drinking Water Standards and 2) the Contaminant Candidate List 1 Notice of Intent of Regulatory Determinations. Additionally, members were updated on the Agency progress on Contaminant Candidate List 2.

The Agency provided thorough briefings for the DWC members on both the CCL 1 and Six-Year Review projects. For the Six-Year Review project, EPA is interested in having the SAB consider and comment on: a) whether EPA has consistently applied its protocol for making determinations about the need to revise (or not to revise) existing regulations that were promulgated prior to 1996; and b) if, in the SAB's view, EPA has appropriately documented its analyses in support of the announced decisions on whether or not to revise these regulations.

For the Contaminant Candidate List Number 1 project, EPA is interested in receiving SAB advice on: a) whether the protocol followed by EPA to make regulatory determinations appears to be reasonable, appropriate and consistently applied, in light of limitations of available data and information; and b) if the data set used for both health assessments and occurrence assessments is adequate for responding to the three statutory requirements for determinations of whether or not to regulate a contaminant on the CCL. The statutory requirements focus on: a) whether a contaminant occurs, or is likely to occur, b) at a level that poses an adverse human health risk, and c) whether regulation provides a meaningful opportunity for health risk reduction.

After some discussion amongst committee members, and after indications by Office of Water representatives that continued consideration would still be of value to the Agency, the Committee agreed to convene a meeting to further consider these issues. EPA and SAB representatives will decide on a final charge for both these issues. The meeting to conduct the reviews is tentatively scheduled for October 17-18, 2002.

On June 13, the Environmental Economics Advisory Committee (EEAC) met in Alexandria, VA. The purpose of the meeting was to conduct a review of the Agency's methodology for evaluating "affordability" of new drinking water regulations to small systems. The concept of affordability was created by the 1996 amendments to the Safe Drinking Water Act and it is used to determine whether variances should be available to systems that provide drinking water to 10,000 or fewer customers (small systems).

The EEAC was asked by EPA's Office of Ground Water and Drinking Water to comment on a number of areas including: a) the basic approach to determining

affordability for small systems; b) factors included within the methodology (e.g., median household income, affordability threshold, expenditure baseline); c) the application, focus, and definition of affordability (e.g., separate standards for ground water and surface water, regional vs. national level affordability criteria); and d) whether the potential availability of financial assistance should be considered in the national level affordability criteria.

The Committee members had a productive discussion of the charge questions with agency representatives and amongst themselves. The Committee will schedule a telephone conference meeting during July or August 2002 to reach closure on its advice to the agency for each of the charge questions. A report will be written for the Administrator conveying the Science Advisory Board's advice on this issue.

The EEAC also received a status briefing from Office of Water personnel on the recently released Water Quality Trading Policy. The update was not a review of the policy by the SAB; however, some interaction of the SAB and EPA on implementation issues might be requested by EPA in the future.

On June 18, the Underground Storage Tanks (UST) Cleanup and Resource Conservation and Recovery Act (RCRA) Subtitle C Program Benefits, Costs and Impacts (BCI) Review Panel (UST/RCRA BCI Review Panel, or "the Panel") of the SAB's Executive Committee (EC) met via teleconference to conduct edits to its working draft document dated June 14, 2002. The document is located on the SAB website, http://www.epa.gov/sab.drrep.htm. Comments on the public draft advisory will be due from all parties by July 15, 2002. It will be finalized in the latter part of July and forwarded to the SAB's Executive Committee for vetting review and approval.

On June 18-19, the Environmental Health Committee's (EHC) Trichloroethylene Health Risk Assessment: Synthesis and Characterization Review Panel (TCE Review Panel) held a face-to-face peer review meeting. The purpose of this meeting was to conduct a review of an Agency draft document, Trichlorethylene Health Risk Assessment: Synthesis and Characterization, Draft Report, Prepared for the U.S. Environmental Protection Agency, Office of Research and Development, EPA/600/P-01/002A, August 2001 External Review Draft. The Review Panel met to: (1) engage in dialogue with appropriate officials from the Agency who are responsible for its preparation; (2) begin to prepare responses to the charge questions; (3) receive public comments as appropriate; and (4) plan the process needed to complete this review.

At the meeting, the Panel received oral public comments from eleven individuals and addressed the nine charge questions posed by the Agency. The Panel agreed on consensus conclusions to be highlighted in the Board's letter to the Administrator. The first key conclusions include: 1) The Agency should move ahead with the document; the Document is a good starting point and the Panel commends the Agency for its effort and advises it to proceed; 2) the Agency should be commended for its groundbreaking work in the following areas: children's issues; susceptibility cumulative risk; use of modeling; explicitly recognizing/acknowledging uncertainties;

use of multiple endpoints for derivation of RfD; examination of multiple modes of action; multiple metabolites; 3) the Panel acknowledge these new areas are major new areas of work and progress in them will involve an evolutionary process. More thorough exploration may change some of the values that appear in the draft document. There is a need for guidance in many of these areas; and 4) Because the document breaks ground in many areas, there is a need to strengthen the scientific basis for the document, a need to improve the rigor of the discussion. The Panel identified ways for the Agency to strengthen its document, and will detail this advise in their report to the Agency.

The Panel agreed on a process and schedule for developing initial drafts and is planning a public teleconference on July 18 to address any remaining issues.

Draft Minutes of the Meeting have been posted on the SAB website.

On June 27, the Multi-Agency Radiological Laboratory Analytical Protocols (MARLAP) Review Panel of the SAB's Radiation Advisory Committee met via teleconference call to conduct edits to its June 11, 2002 working draft (non-public) report. It is anticipated that at this time, the MARLAP Review Panel will select the next date of its second face-to-face public meeting on this topic. The two dates that are reserved are July 30, 31 and August 1, and September 24-26, 2002. The advice on MARLAP is being provided to seven Federal Agencies, Departments and Commissions, where the SAB's MARLAP Review Panel is in effect acting as a blue-ribbon expert review body for the Federal government.

SAB Lecture Series

"Issues in the Economic Appraisal of Ecological Value and Damages"

On June 6, 2002, the U.S. Environmental Science Advisory Board (SAB) hosted the fourth lecture in the third year of its series, "Science and the Human Side of Environmental Protection." The presenter was Dr. Robin Cantor, a member of the SAB's Research Strategies Advisory Committee and a Principal and Managing Director at LECG, LLC. She spoke on the topic "Issues in the Economic Appraisal of Ecological Value and Damages." Thirty-five people from six Headquarters Offices, four regions (including one invited guest from the New York Academy of Sciences), and one SAB member participated in the audience.

Dr. Cantor introduced her talk by providing a brief background on her work with LECG, an economics consulting firm that provides analyses to private clients, analysis primarily used in litigation. Clients are interested in whether one activity or choice, involving ecological resources is better than another, and are interested in the topic of compensation for injury to resources. She proposed to outline the kinds of data and methods used for these questions; their potential for valuing protection of ecological systems and services by EPA; and their relevance to a planned SAB project on that topic to be discussed later in the lecture and discussion to follow.

From her vantage point, there has

been a recent change in the reasons why people are interested in valuing ecological assets and a change in how they are valuing them. As a result, there is increased information that can be used in understanding the values placed on ecological assets. In addition to "old reasons" [litigation to support Natural Resource Damage (NRD) cases that focused on the dollar value of resources, support for regulatory decisions, and academic curiosity], there are some new reasons. In NRD cases, responsible parties are increasingly willing to settle with trustees and these settlements provide a body of information useful to valuation. There is also a body of literature emerging from: mitigation banking (e.g., for wetlands); liability transfers (where private entities sell contaminated properties from their portfolios and calculate environmental damages into the equation); Supplemental Environmental Projects, where acceptable " compensatory trades" are established for penalties due from violations of environmental laws; and environmental easements. In her experience, since she joined LECG in 1996, large companies are considering the ecological capabilities of their properties as important as the production component of these properties.

As background for her discussion of the changes in how people now are valuing ecological assets, she discussed some basic principles of economics and how they have applied to the question of measuring economic value of ecological assets. She said that economists "feel strongly" about markets, because markets reveal individual preferences. Value, in economic terms, is defined by human use and human appreciation of existence. For ecological assets, a key problem is that "ecological resources don't have price tags." As a result, there is often frustration between economists and others who believe that values are holistic and intrinsic and not revealed by the market. Frustration also crops up when the "convention wisdom" about worth (i.e., "Anything worth doing is worth doing well) meets the economic commitment to marginal analysis ("Anything worth doing is worth doing up to the point where the marginal benefit equals the marginal cost").

Dr. Cantor sketched out the tools that have been used for measuring economic value. They have measured either "revealed" sources of economic values (markets); expressed sources (through direct elicitation); or imputed values (avoided costs). She provided a thumbnail sketch of some of the tools that have been used (e.g., survey tools, such as contingent valuation and conjoint analysis; productivity modeling; travel cost models; hedonic price analysis; benefit transfer; and damage cost models).

Dr. Cantor then described in more detail, the changes that have been taking place in why people are interested in valuing ecological assets and how they are valuing them. One major driver of change has been the NRD process, which establishes the value of damaged natural resources removed from public use. At the start of this program, the focus of NRD Trustees, such as the National Oceanic and Atmospheric Administration and the Department of Interior, was on monetary compensation for goods and services. Assessment of damages did not include ecosystem functions. As the NRD process has matured, there has been a shift in the analyses done by Trustees, who now consider the ecological *capabilities* lost as part of the damages to be assessed. They increasingly emphasize restoration, rehabilitation, replacement, or acquiring the equivalent of the damaged resources.

Increasingly, the goal of the NRD process is to convince the Trustees that the public is being "made whole from a biophysical point of view" and that there is an acceptable nexus between the lost resources and compensation. The database generated as a result of these new NRD settlements provides, in her view, a rich source of information to be used in assessing value of ecological assets.

Analytical techniques have also evolved to support this shift in perspective. Habitat Equivalency Analysis and Scaling have accompanied the shift from a "use-based" theory of value to a "resource-based theory of value. A review of how these tools have been used, however, shows that NRD settlements often do not account well for inequalities in ecological capabilities, and also do not account for the different development potential of ecological resources traded or changes in preferences that affect welfare (for example, changes in recreational preferences). Scoring methods have developed to bridge the gap. These methods account for bio-physical attributes, bio-physical functions and production of goods and services, and also account for key economic features, such as interdependencies with landscape influences (local market conditions and adjacent conditions); temporal and spatial boundaries; scarcity and substitutability; and uncertainty.

Dr. Cantor saw the private market in ecological assets evolving in parallel. "Brokers" have emerged to facilitate trades by providing information and expertise on ecological assets and to help to "make deals" between Potentially Responsible Parties and Trustees. She cited a recent New Jersey study of wetland mitigation and ecological quality as a cautionary note, indicating that a high proportion of ecological asset trades may be occurring at a low cost and quality and she mentioned that public sector involvement might offset this market dynamic, by increasing regulatory pressures that may increase demand.

Dr. Cantor urged the Agency to look at the suite of new empirical data sources that could provide new information and methods for valuation. She recommended that the Agency consider information available about NRD settlements; information from EPA's own Supplemental Environmental Projects (and the trades they deem acceptable for injuries to environmental resources); and the increasing body of information available from businesses that are valuing land for its capabilities to produce ecological goods and services (e.g., valuation for environmental liabilities for converting insurance coverage; valuation associated with easements or donated property, and wetland mitigation banking).

Dr. Cantor suggested that the Science Advisory Board's new project "Valuing the Protection of Ecological Systems and Services" consider the merits of some of these scoring methods; gather and evaluate information on actual trades; consider whether valuation might follow the "residential" or "commercial" analogue for establishing valuing (e.g., whether trades can be understood as frequent exchanges capable of statistical investigation for environmental values, as in the case of residential properties, or whether the characteristics of individual trades involve many complex, distinguishing features that need independent analysis, as generally in the case of commercial properties.)

Dr. Angela Nugent, in EPA's Science Advisory Board Staff, briefly introduced the new SAB project, which is being

planned. This multi-year project, endorsed by the SAB Executive Committee at its March 2002 meeting, is entitled "Valuing the Protection of Ecological Systems and Services" and is intended to enhance the tools available for analyzing the value of protecting ecological systems and services and to strengthen the Agency's use of them for decision making. She described how the project was immediately stimulated by the controversy among members of the Advisory Council on Clean Air Compliance Analysis's Panel to Review the Draft Analytical Plan for EPA's Second Prospective Analysis of the Costs and Benefits of the Clean Air Act. In the work of that panel, ecologists and economists disagreed on how to advise the Agency on quantifying the benefits of protection ecological systems and services as a result of implementing the Clean Air Act. The new project was also linked to the SAB's past interest in strengthening the Agency's tools for ecological protection and analysis of the benefits and value of ecological protection, as described in such SAB reports as *Reducing Risk* and *Toward Integrated Environmental Decision Making,* SAB's workshop in 2001, *Understanding Public Values and Attitudes Related to Ecological Risk Management: an EPA Workshop Report of an EPA/SAB Workshop,* that focused on the "real-life" example of valuation issues associated with air deposition of nitrogen in Tampa Bay.

The SAB is seeking a person to chair to lead this new multi-disciplinary effort, which will encompass ecological, economic, social, and technological analyses. SAB staff will be meeting with a coordinating group that will include the National Center for Environmental Economics, the Office of Water and the Office of Air and Radiation. Dr. Nugent welcomed the ideas and participation of others in this effort.

Questions then came from the general audience. The first question came from the SAB member participating by teleconference and concerned whether there were enough data available from wetland trading for conclusive analysis of the value of such trades. Dr. Cantor responded that there were enough transactions, but it was unclear whether there were sufficient data. The states of Florida and New Jersey have been the most systematic in collecting data, and that New Jersey had collected the most biophysical data. Both Dr. Cantor and the questioner agreed that EPA could help further systematize and characterize the data states collected and that EPA and others would benefit from the resulting data set.

A question from a regional participant pertained to whether the SAB project had been engaging EPA's National Center for Environmental Economics (NCEE). Dr. Nugent replied that NCEE was involved and welcomed Region 4's participation in planning, as lead region for the Office of Policy, Economics and Innovation.

Several questions then followed pertaining to the nature and availability of data sets Dr. Cantor had described. In regard to Supplementary Environmental Projects; Dr. Cantor emphasized the potential usefulness of information gathered by EPA in developing Supplementary Environmental Projects; EPA's website suggests a rich source of information. Another question concerned the recent New Jersey study of wetlands mitigation banking and the low efficiency described for the trades studied. The questioner asked whether this report would have a negative effect on future trades.

Dr. Cantor replied that the New Jersey wetlands mitigation program was perceived as a leader and the impact of its recent report is unclear. She suggested that regulatory pressures might increase demand for higher ecological quality trades in the future.

Another set of questions concerned the concept of value. One question referred to the "frustration" that Dr. Cantor had described as a theme for many past interactions between economists and others on this topic. The questioner pointed out that many believe that market valuation isn't the only element in establishing "value." Dr. Cantor agreed and responded that she has used the term "economic appraisal," not "economic valuation" in her talk. The questioner then asked about the scope of the SAB project and whether it would address whether discounting was appropriate for valuation. Dr. Nugent responded that the Board intended to look at a wide range of kinds of environmental decisions and is planning to consider a wide range of tools. It is likely that the Board will focus on identifying where different tools may be most appropriate, and undoubtedly the issue of discounting will arise. Dr. Cantor echoed this view and suggested that the SAB should involve and learn from the climate change program, where there has been controversy over discounting. She also suggested that there were tools used by other social scientists for establishing social, rather than individual preferences that the Agency might benefit from considering.

The final set of questions concerned whether there are international resources that the Agency might use in strengthening its approach to valuing ecological resources. Dr. Cantor identified an Australian website in New South Wales that contained a huge collection of valuation literature that addresses ecological assets and services. She also urged the Agency to review: (1) the resources and discussions undertaken as part of the Intergovernmental Panel on Climate Change (IPCC); (2) the work of England, France and the Netherlands (among other nations) regarding trading programs for carbon dioxide; (3) England's program for granting credits to encourage renewable energy; and (4) information from the World Bank program forgiving debt where environmental investments were made.

Dr. Cantor has made copies of her slides available. Please contact Dr. Angela Nugent (email: nugent.angela@epa.gov) for copies.

The SAB plans to continue to host lectures on the social sciences on a periodic basis to highlight how they can help solve actual environmental problems. If you have suggestions for future speakers or topics, Please contact Dr. Nugent.

Status of Formation of SAB Panels

The Board has developed a revised Panel Formation Process for the recruitment of *ad-hoc* review panels. The current status of *ad hoc* panels under going this process is summarized here. For the latest detailed information, please visit our website www.epa.gov/sab/paneltopics.html.

SAB Reports in Progress

a PROJECTS DUE FOR A LATER EC MEETINGS

DWC

1) Long Term Enhanced Surface Water Treatment Rule Proposal and Stage II Disinfection/Disinfectant By Product Rule Proposal

EEC

1) Risk Reduction Options Report

RAC

2) MARLAP Report

b PROJECTS THAT DO NOT REQUIRE EC APPROVAL (CASAC & COUNCIL)

There are none at this time.

c PROJECTS THAT HAVE RECEIVED EC APPROVAL AND AWAIT COMPLETION

EEC

1) Surface Impoundments Study

ABSTRACTS OF NEW REPORTS

a A Framework for Reporting on Ecological Condition: An SAB Report EPA-SAB-EPEC-02-009

The Ecological Processes and Effects Committee (EPEC) of the EPA Science Advisory Board reviewed the framework for assessing and reporting on ecological conditions. To accomplish this, the Agency would benefit from development of a systematic framework for assessing and reporting on ecological condition. The framework would: help assure that the required information is measured systematically by the Agency's programs; provide a template for assembling information across Agency programs and from other agencies; and provide an organizing tool for synthesizing large numbers of indicators into a scientifically defensible, yet understandable, report on ecological condition.

The purpose of this report is to provide the Agency with a sample framework that may serve as a guide for designing a system to assess, and then report on, ecological condition at a local, regional, or national scale. The sample framework is intended as an organizing tool that may help the Agency decide what ecological attributes to measure and how to aggregate those measurements into an understandable picture of ecological integrity.

The SAB framework provides a checklist of ecological attributes that should be considered when evaluating the health of ecological systems. It also provides an organizational scheme for assembling hundreds of individual

parameters into a few understandable attributes. We hope that the SAB framework will foster more systematic collection of ecological information by the Agency, provide a locus for integrating that information among programs both within and outside the Agency, and catalyze a trend towards environmental reporting that addresses the essential attributes of ecological systems.

Ecological systems are complex, and it has proved extremely difficult to answer the holistic questions that people ask about them – "How healthy is my watershed? Will native species be here for my children and grandchildren to enjoy?" With this report, we provide a way to integrate scientific data into the information necessary to answer these questions, and ultimately to foster improved management and protection of ecological systems. We look forward to your response to this report, and we would welcome the opportunity to discuss these issues further with you as the Agency moves forward with a report on the state of the environment.

b Southeastern Ecological Framework: An SAB Review EPA-SAB-EPEC-LTR-02-002

The Ecological Processes and Effects Committee (EPEC) of the EPA Science Advisory Board established a panel to review Region's 4 Southeastern Ecological Framework (SEF). This document is a decision support system intended to identify remaining natural areas in the southeastern U.S. of highest value for conserving regional biodiversity.

The Committee was asked to respond to the following charge questions: a) whether the Florida Ecological Network approach is consistent with modeling an ecological framework for a region; b) whether the data layers used in developing the Southeastern Ecological Framework sufficient to indicate ecological integrity; c) would a similar model or approach be applicable for developing a framework for the U.S.; d) would additional or alternate data layers will be needed for a national framework; e) modifications needed to increase the utility of the approach as a decision support tool in meeting EPA's program activities and GPRA goals; f) discuss what linkages between various indicators and EPA programs or control authorities may help to elevate the use of SEF as a decision support tool.

While the Panel recognizes and praises the significant efforts that have gone into the Southeastern Ecological Framework, the Panel provided the following recommendations for improvements: a) the Panel recommends that the SEF be enhanced to include a wider range of ecological attributes that are important to regional ecological integrity; b) the Panel recommends that the process for setting criteria to select priority lands be made explicit and that the criteria and the individual data layers used in the SEF receive additional peer review; c) with the caveats noted, the Panel agrees that application of the SEF approach would be beneficial in other regions of the U.S., although different data layers and/or different criteria for selecting priority areas likely would be needed.

The Panel applauds the designers of the Southeastern Ecological Framework for an important effort. We recommend that the Agency consider additional enhancements

and peer review of the product to further improve its utility to Agency decisions in EPA Region 4.

Computer News

(1) SAB Website is within the EPA Home Page. You are invited to visit the SAB Website at URL: http://www.epa.gov/sab
The site offers such features as:

(a) Full-text reports for FY1994-FY2002
(b) Background information about the structure, function, and membership of the SAB
(c) A projected six-month calendar of SAB meetings
(d) Recent issues of HAPPENINGS
(e) Draft/final agendas of upcoming meetings and draft/final minutes of past meetings.

(2) SAB Listserver - By subscribing to the free SAB Listserver, you will automatically receive copies of all Federal Register notices announcing SAB meetings, together with brief descriptions of the topics to be covered at the meetings. These notices will be e-mailed to you within 24-hours of their publication in the Federal Register.

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3) Obtaining copies of SAB reports:

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Phone: (202) 564-4543
Email: tillery.priscilla @epa.gov
or
by faxing your request to (202) 501-0256.

Members/ Consultants/ Staff News

Staff

Jack Kooyoomjian and **Vickie Richardson** were recognized on June 27 at the Quality of Work Life Workshop by Ray Spears, the Deputy Chief of Staff, for their outstanding service and significant contributions to the Office of the Administrator's Quality of Work Life Initiative.

Robert Flaak was an invited instructor for the General Services Administration (GSA) training course on Federal Advisory Committee Management at the Centers for Disease Control and Prevention in Atlanta on June 27.

Members/Consultants

Dennis Paustenbach, an SAB consultant for 15 years, recently completed a new comprehensive textbook on risk assessment entitled "Human and

Ecological Risk Assessment: Theory and Practice" (John Wiley and Sons). This is a 1550 page text which assembles the expertise of fifty different experts in the field. The book presents 19 case studies which illustrate precisely how a number of difficult environmental or occupational health issues were quantitatively addressed. More than 4,000 references are provided. The book is intended as a reference, as well as a textbook for graduate students.

Bon Mot

In biology class the teacher was explaining that germs always work in large groups.

The class clown piped up, "That would explain then why no one has ever come down with the measle."